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**Hydrodynamic plain journal bearings  
under steady-state conditions —  
Circular cylindrical bearings —**

**Part 3:  
Permissible operational parameters**

*Paliers lisses hydrodynamiques radiaux fonctionnant en régime  
stabilisé — Paliers circulaires cylindriques —*

*Partie 3: Paramètres opérationnels admissibles*

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## Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 8, *Calculation methods for plain bearings and their applications*.

This second edition cancels and replaces the first edition (ISO 7902-3:1998), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

- adjustment to ISO/IEC Directives, Part 2:2018;
- correction of typographical errors.

A list of all parts in the ISO 7902 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

In order to attain sufficient operational reliability of circular cylindrical plain journal bearings when calculated in accordance with ISO 7902-1, it is essential that the calculated operational parameters  $h_{\min}$ ,  $T_B$  or  $T_{\text{ex}}$  and  $\bar{p}$  do not lie above or below the permissible operational parameters  $h_{\text{lim}}$ ,  $T_{\text{lim}}$  and  $\bar{p}_{\text{lim}}$ . The permissible parameters represent geometrically and technologically dependent operational limits within the plain bearing tribological system. They are empirical values which still enable sufficient operational reliability even for minor influences (see ISO 7902-1).

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